We claim:

1. An isolated nucleotide sequence having a nucleotide sequence having at least about 50% sequence homology with a sequence that is a truncated form of SEQ ID No. 8.

2. The sequence of claim 1, said sequence having at least about 60% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

3. The sequence of claim 1, said sequence having at least about 75% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

4. The sequence of claim 1, said sequence having at least about 87% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

5. The sequence of claim 1, said sequence having at least about 95% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

6. An expression vector containing a nucleotide sequence having at least about 50% sequence homology with a truncated sequence from SEQ ID No. 8.

7. The vector of claim 6, said nucleotide sequence having at least about 60% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

8. The vector of claim 6, said nucleotide sequence having at least about 75% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

9. The vector of claim 6, said nucleotide sequence having at least about 87% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

10. The vector of claim 6, said nucleotide sequence having at least about 95% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 8-14.

11. An isolated nucleotide sequence which differs from that of claim 1 due to a mutation event selected from the group consisting of point mutations, deletions, insertions and rearrangements.

12. A vaccine effective for conferring protective immunity against *F. necrophorum* comprising the protein expressed by a portion of SEQ ID No. 8 and a suitable pharmacologically compatible carrier.

13. The vaccine of claim 12, said vaccine being prepared by a method comprising the steps of:

a) providing the *F. necrophorum* gene which expresses leukotoxin;

b) truncating said *F. necrophorum* gene into a plurality of discrete nucleotide sequences, each of said discrete nucleotide sequences encoding for a respective polypeptide sequence;

c) expressing and recovering said encoded polypeptide sequence expressed by at least one of said discrete nucleotide sequences;

d) inactivating said recovered polypeptide sequence; and

e) combining said inactivated polypeptide sequence with said suitable pharmacologically compatible carrier to produce said vaccine.

14. The vaccine of claim 13, said discrete nucleotide sequences having a sequence having at least about 50% sequence homology with a sequence selected from the group consisting of SEQ ID Nos. 9-14.

15. The vaccine of claim 13, further comprising the step of expressing and recovering said respective polypeptides using said nucleotide.

16. A recombinantly derived nucleotide sequence than encodes a polypeptide effective in conferring protective immunity against *F. necrophorum* infection in mice, said sequence comprising a truncated form of SEQ ID No. 8.

17. The sequence of claim 16, said sequence having at least about 50% sequence homology with a sequence selected from SEQ ID Nos. 9- 14.